1. A method of reducing the level of circulating free fatty acids in a mammal comprising, comprising administering to a mammal a compound that inhibits expression of Mal1.

2. The method of claim 1, wherein said mammal is obese or at risk of becoming obese.

3. The method of claim 1, wherein said mammal is suffering from or at risk of developing diabetes.

4. The method of claim 1, wherein said mammal is suffering from or at risk of developing dyslipidemia.

5. The method of claim 1, wherein said mammal is suffering from or at risk of developing atherosclerosis.

6. The method of claim 1, wherein said compound inhibits transcription of endogenous Mal1.

7. The method of claim 6, wherein said compound binds to a cis-acting regulatory sequence of a Mal1 gene.

8. The method of claim 1, wherein said compound inhibits translation of a Mal1 transcript into a Mal1 polypeptide.

9. The method of claim 8, wherein said compound is a Mal1 antisense sequence.

10. The method of claim 9, wherein said Mal1 antisense sequence is complementary to a nucleic acid sequence in exon 1 of a Mal1 gene.

11. A method of inhibiting binding of a fatty acid to Mal1 in a cell, comprising contacting said cell with a compound that inhibits expression of Mal1.

12. A method of reducing the level of circulating free fatty acids in a mammal comprising, comprising administering to a mammal a compound that inhibits Mal1 activity.

13. The method of claim 12, wherein said compound is an ligand that binds to a Mal1 polypeptide.

14. The method of claim 13, wherein said ligand is an antibody.

15. The method of claim 13, wherein said ligand is a polypeptide.

16. A method of diagnosing insulin resistance or a predisposition thereto in a mammal, comprising determining the level of Mal1 transcripts or polypeptide in a tissue sample, wherein an increase in the level said transcripts or said polypeptide in said tissue compared to a normal control tissue indicates that said mammal is suffering from or predisposed to developing insulin resistance.

17. A method of diagnosing diabetes or a predisposition thereto in a mammal, comprising determining the level of Mal1 transcripts or polypeptide in a tissue sample, wherein an increase in the level of said transcripts or said polypeptide in said tissue compared to a normal control tissue indicates that said mammal is suffering from or predisposed to developing diabetes.

18. A method of diagnosing dyslipidemia or a predisposition thereto in a mammal, comprising determining the level of Mal1 transcripts or polypeptide in a tissue sample, wherein an increase in the level of said transcripts or said polypeptide in said tissue compared to a normal control tissue indicates that said mammal is suffering from or predisposed to developing dyslipidemia.

19. A method of diagnosing atherosclerosis or a predisposition thereto in a mammal, comprising determining the level of Mal1 transcripts or polypeptide in a tissue sample, wherein an increase in the level of said transcripts or said polypeptide in said tissue compared to a normal control tissue indicates that said mammal is suffering from or predisposed to developing atherosclerosis.

20. A method of diagnosing a predisposition to developing obesity, comprising determining the level of Mal1 transcripts or polypeptide in a tissue sample, wherein an increase in the level of said transcripts or said polypeptide in said tissue compared to a normal control tissue indicates that said mammal is predisposed to developing obesity.